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ABSTRACT

Some characteristics and trends of the educational development in the People's Republic of China (PRC) are analyzed on the basis of statistical data covering the period 1949 to 1985. During the 1950s, 1960s, and 1970s, the educational development of the PRC displayed a trend toward the reduction of educational disparities among regions and among ethnic groups. Although school enrollment increased from 1980 to 1985, the restructuring of secondary level studies resulted in a net reduction. Adult education made progress, due to radio and television universities. At the higher education level, engineering and teacher training remained the most populated, but more prominence was given to political science and law and to finance and economics. In primary schools, teachers' qualifications were upgraded and the pupil/teacher ratio was reduced, improving the quality of services. Women and national minorities have made significant progress in education, though both groups were underrepresented in 1985. Five references are appended. (Author/LMS)

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EDUCATIONAL DEVELOPMENT IN CHINA: CHARACTERISTICS AND TRENDS

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Abstract

Some characteristics and trends of the educational development in the People's Republic of China are analyzed, on the basis of statistical data covering the period 1949 to 1985. During the fifties, sixties and seventies, the educational development of the PRC displayed a trend towards the reduction of educational disparities among regions and among ethnic groups.

From 1980 to 1985, in general, school enrolment increased substantially. However, the net result of the restructuring of secondary level studies was a reduction in enrolment, mainly attributable to a sharp decrease of enrolment in the general secondary schools of the counties. Adult education made some noteworthy progress, due to radio and television universities, in particular. At the higher education level, political science and law, and finance and economics, as fields of study, were given more and more prominence, although the most widespread fields remained engineering and teacher training.

During the first half of the eighties, the narrowing of the higher education enrolment gap between the advanced and the retarded territories came to a halt. However, the educational gap between territories was narrowed for general secondary schools, secondary teacher training schools, and agricultural and vocational schools. In primary schools, the quality of services was improved through the upgrading of the teachers' qualifications and through the reduction of the pupil/teacher ratio; but city-town-county differences in services persisted. Meanwhile, the national minorities have continued to increase their share of the educational development, although they still lagged behind the Han in 1985. Women have, likewise, made significant progress in education, although they remained underrepresented in 1985.

This paper will analyze some characteristics and trends of the educational development in the People's Republic of China, on the basis of statistical data covering the period 1949 to 1985.

1. Characteristics in 1982 and trends in the three preceding decades[1]

1.1 Regional disparities

Since the early fifties, the PRC has attempted to reduce the economic disparity between the coastal area and the relatively disadvantaged inland area. After three decades, the inland share of industrial output had increased significantly, but remained far short of its share of the population. Moreover, the level of development is uneven for the component territories of both the coastal and the inland areas. The coastal/inland dichotomy is a convenient tool of analysis, but it is a crude and imperfect measure of economic regional disparities in the PRC.

The notion of economic region proves to be more discriminating than the former, although four of the six economic regions comprise both coastal and inland territories. Excluding highly developed Beijing, Tianjin and Shanghai, we have noted that the six economic regions can be classified according to their level of development: high or low. Only the Northeast region falls into the "high development" category. However, in the five other regions, the discrepancy between the share of industrial output and the share of total population varies. The discrepancy is increasingly large in the following order: East, Northwest, North, Central-South and Southwest. For the past three decades, the Northeast has decreased its share while each of the other regions, especially the Northwest, has

increased its share. This pattern of development, at the level of the economic regions, is also characteristic of most component territories of the economic regions. Only four of the 28 territories have not followed this trend: (a) two "favored" territories - Beijing and Jiangsu; and (b) two "neglected" territories - Guangdong and Jiangxi.

To a certain extent, the regional disparities in industrial development are reflected by regional disparities in educational development. This is particularly true for the three Northeast provinces, where the level of illiteracy is low, and for the Southwest (except Sichuan) where the level of illiteracy is high. The other four regions fall between these two extremes, although none displays a high degree of homogeneity. The territories where illiteracy is most widespread all have a share of industrial output smaller than their share of the population. Those territories are: Anhui, Guizhou, Tibet, Yunnan, Gansu, Ningxia and Qinghai. (However, Gansu does come close to a proportional share of industrial output and population.) Of the ten territories where the level of illiteracy is very low, six have a relatively high level of industrial development: Liaoning, Jilin, Heilongjiang, Beijing, Tianjin and, especially Shanghai. The territories where the level of illiteracy is low despite a low level of industrial development are: Shanxi, Guangdong, Hunan and, especially, Guangxi. (The difference for Shanxi is not large.)

Longitudinal data on illiteracy at the provincial level are unavailable. However, longitudinal data on enrolment in institutions of higher education indicate that an inter-provincial redistribution of education has been effected in the PRC in the fifties, sixties and seventies, and that, although the redistribution was especially noticeable between 1955 and 1976, it has generally taken place gradually throughout the first three decades of the PRC. Overall, though, the advanced areas still have a larger share of the enrolment than their share of the population.

The 29 territories vary in their urban/rural demographic composition. There is a tendency for illiteracy to be more widespread in the most rural territories. However, there are two exceptions: Hunan and Guangxi are largely rural but their level of illiteracy is low.

"City" and "rural area", as concepts, screen the existence of unequal conditions, in terms of educational development. Indeed, the cities, as well as the rural areas, of the various territories have uneven levels of illiteracy, and the magnitude of the urban/rural gap is not the same in all territories, e.g. the gap is small in Zhejiang and Guizhou and fairly large in Gansu and Qinghai.

1.2 Ethnic disparities

Chinese and non-Chinese studies on the national minorities in China generally refer to the latter as being backward, in comparison with the Han majority. When considering the situation of the national minorities in China, it is indeed more convenient to view them as a whole than to examine the conditions specific to each of the 55 national minorities. The national minorities generally live in the least developed areas of the country and have a higher level of illiteracy than the Han majority, and the nationalities policy applies to all national minorities without discrimination.

However, there is a remarkable variation in the degree of socio-economic and cultural development of the different minorities. From the point of view of education, the following twelve minorities can be considered as substantially retarded: Tibetan, Hani, Lisu, Wa, Lahu, Dongxiang, Bulang, Sala, Nu, Benglong, Baoan and Luoba. These minorities are to be found mainly in Yunnan, Tibet, Qinghai and Gansu. The data available have not made it possible to determine if the national minorities and the Han in each of these provinces and autonomous region are equally underdeveloped. We have found that

Yunnan, Tibet, Qinghai and Gansu are areas where the overall (i.e. Han and national minorities combined) level of illiteracy is relatively high. Tibet, which is, by far, the most illiterate area of the country, is also the area where the percentage of Han is by far the smallest.

At the other extreme, we have found that thirteen national minorities have a level of illiteracy lower than that of the Han. These minorities are the following: Mongol, Korean, Man, Kazak, Gaoshan, Dawoer, Xibo, Uzbek, Russian, Ewenke, Tataer, Oroqen and Hezhe. They mostly live in areas which have a total (Han and national minorities combined) low level of illiteracy, notably in Northeast China: Liaoning, Jilin and Heilongjiang. This might indicate that the minorities, as well as the Han, in these areas have a low degree of illiteracy. But only a detailed study of this question could determine this with certainty. Such a study would be possible with the raw data on nationality, illiteracy and province and autonomous region of the 1982 Census.

Nationality, city/county, and area (as distinguished by provinces and autonomous regions) prove to be significant variables in the intra-national study of education in the People's Republic of China. Given the importance of social proximity and high visibility for the development of feelings of relative deprivation and ensuing social conflicts, we would surmise that intra-national studies in education in China should even be made at the prefecture and the county levels.

Observations at the prefecture and the county levels should center on the national minorities whose level of illiteracy is in contrast - being higher or lower - with the level of illiteracy of the rest of the population of the territory they inhabit.

Of particular interest will be the study of four advanced minorities - the Kazak, the Gaoshan, the Mongols and the Man -, some

of whose members live in retarded territories. The question to be answered through this study will be: do all clusters of these minorities have a low level of illiteracy, notwithstanding the territory - retarded or advanced - they inhabit?

Parts of thirteen intermediate minorities (Hui, Uygur, Miao, Yi, Zhuang, Buyi, Dong, Yao, Tujia, Li, She, Shui and Gelao) live in retarded and advanced territories. Their geographical dispersion might account for the fact that their level of illiteracy is about average. More detailed observations on these minorities will determine if underneath their overall level of illiteracy lie very different levels reflecting, respectively, the retarded and advanced territories they inhabit.

Retarded, as well as advanced, minorities are found in a total of nine territories: three "intermediate" (Henan, Sichuan and Xinjiang) and six "retarded" (Anhui, Guizhou, Yunnan, Gansu, Qinghai and Ningxia). Intra-provincial comparisons will show to what extent the minorities within a given province share a similar level of illiteracy. This will be an indication of the relative effect of "region" and "ethnicity" on illiteracy.

1.3 Gender disparities

There is a large female/male educational disparity, as revealed by the female/male inequality ratio of illiteracy (i.e. the percentage of female illiterates and semi-literates divided by the percentage of male illiterates and semi-literates). There is no noteworthy city/county difference in the ratio. But the latter is generally large in the Central-South and small in the Northwest. It is exceptionnally small for Xinjiang, and large for Tianjin, Shanghai, Guangdong and Guangxi. Among the national minorities, several have a small ratio and several others have a large ratio, and within some territories - Heilongjiang, Inner Mongolia, Gansu, Xinjiang, Yunnan and Hunan -,

both types are found.

1.4 Education and employment

Three variables were used to measure employment: (a) the working/non-working population; (b) the population of urban dwellers waiting for work; and (c) the occupational status of the working population.

Illiteracy is still widespread in the working population, but it is very rare among the urban dwellers waiting for work. In the main, the urban unemployment problem affects middle school graduates. Illiteracy varies greatly according to occupational status: it is prevalent among peasants, negligible among professionals, cadres and office clerks, and noticeable in the other types of occupations. College graduates are scarce, even among professionals, cadres and office clerks.

The proportion of urban dwellers who are waiting for work is generally low, but there is a noteworthy variation among the provincial-level territories: the proportion is highest in Guangdong, Guangxi and Inner Mongolia, and lowest in Shandong, Zhejiang, Tianjin, Hebei and Jiangsu. No explanation has yet been found for this variation.

Peasants make up unequal proportions of the working population in the various territories: they are proportionately few in the Northeast, the three municipalities, Zhejiang, Jiangsu and Xinjiang, and numerous in the Southwest, Henan, Anhui, Guangxi and Gansu. Although the peasantry is widespread amorg the Han, it is even more widespread among the national minorities taken as a whole. But the relevant data must be examined for each national minority; indeed, several minorities have comparatively small proportions of their working population in the peasantry.

Employment is unequally distributed among the genders. The males' presence is preponderant in the working population and proportionately preponderant in the occupations that are associated with more education. On the other hand, females are more likely than males to be found among urban dwellers waiting for work. For both genders, the urban dwellers waiting for work are usually less than 25 years of age. For each type of occupation and for both males and females, there tends to be a cluster in a given age group (for instance, industrial workers tend to be less than 35 years of age, whereas cadres tend to be over 35). The proportion of women in the working population varies among the national minorities: it appears that minority women in the Northeast and the Northwest are comparatively few in the working population; the obverse is seen among minority women in the Southwest.

In many territories, the level of education of the urban dwellers waiting for work is a reflection of the level of education of the population as a whole. This is true of Beijing, Tianjin, Shanghai and Jilin, as well as Anhui, Guizhou and Yunnan. However, Guangdong displays a contrary relation: Guangdong urban dwellers waiting for work tend to have very little education. We suggest that in Guangdong, more than elsewhere, illiteracy could make it difficult to obtain employment.

An analogous reasoning is applied to explain the comparatively large proportion of females among the persons waiting for work in Tianjin and Shanghai, where the female/male inequality ratio is large and the male level of illiteracy is very low. In these two municipalities, illiteracy would be a serious handicap for the obtainment of work. However, in Guangdong and Guangxi - where urban unemployment is higher than in any other territory -, the large female/male inequality ratio and the very low level of male illiteracy are associated with a small proportion of women among the urban unemployed.

Among the national minorities, the proportion of women in the working population appears to be negatively related to education, especially in Yunnan, the Northeast and the Northwest. This peculiar finding indicates that education is not altogether a necessary path for the obtainment of work, and that education does not necessarily lead to work.

The female level of illiteracy, and the female/male inequality ratio are associated with occupational status. Where both males and females have a low level of illiteracy, females are relatively numerous among professionals. But in that case, as in all other cases, females are substantially outnumbered by men as cadres. In all other cases also, women are relatively scarce among professionals.

In seven provincial-level territories - Qinghai, Gansu, Xinjiang, Heilongjiang, Yunnan, Hunan and Fujian -, there is some incongruence between region and ethnicity (i.e. various national minorities inhabiting a given territory have contrasting characteristics with one another), in terms of one or more of the following: (a) female/male inequality ratio of illiteracy; (b) percentage of peasants in the working population; and (c) percentage of women in the working population. This phenomenon concerns 27 of the 55 national minorities. It points to the respective influence of region and ethnicity, and should eventually be probed into further through intra-provincial observations.

2. Trends in the eighties

2.1 Expenditures and investment in education

From 1980 to 1985, the public expenditures in education increased at a much quicker rate than the total national budget, and the share of public expenditures in education within the total national budget

rose to 10% from 8%. In addition, within the public expenditures in education, the proportion of the expenditures for higher education, as opposed to those for general education, rose from 20% to 22%, (table 1).

Similarly, the rate of increase of capital investment in education was much larger than that of total capital investment, and the capital investment in education, as a percentage of total capital investment, increased from 2.5% to 4.1%. The relative share of higher education remained larger than that of general education, although it decreased from 64% to 61% (table 2).

2.2 School enrolment

Enrolment in schools of all levels and types, except general secondary schools and primary shcools, increased to varying degrees. The most spectacular increase of enrolment was in institutions of higher education, especially at the postgraduate level, and in agricultural and vocational schools, especially at the senior level. The restructuring of secondary education in the early eighties does not fully explain the evolution of enrolment at this level. Indeed, while the loss to general secondary schools is in the order of 8 million, the combined increase of enrolment in specialized secondary schools and agricultural and vocational schools is less than 2.5 million. Moreover, although enrolment at the secondary level, during the eighties, has tended to be less concentrated in the general secondary schools, the latter type is still predominant (97% and 92% of all secondary level enrolment, in 1980 and 1985, respectively). Despite their tremendous recent development, agricultural and vocational schools still cater to a small proportion of all secondary school students (4.5% in 1985). The relatively mild increase in secondary teacher training schools reflects the difficulty in recruiting candidates for this field. While enrolment in primary schools declined by 9%, enrolment in kindergartens increased by 29%.

The latter increase is obviously an indication of the provision of more services at that level, while the decline of enrolment in primary schools is a consequence of the reduced birth rate (table 3).

Although most kindergartens are run by the community (respectively, 75% and 65% of all kindergarten enrolment in 1980 and 1985), the increase in kindergarten enrolment in the eighties is especially striking in kindergartens run by Departments, in particular, the Education Department (table 4). The kindergartens run by non-Education Departments are characterized by a small child/teacher ratio: i.e. for each teacher there is a relatively small number of children. This characteristic was enhanced from 1980 to 1985, distinguishing the kindergartens run by non-Education Departments from the two other types. In addition, the increased enrolment in kindergartens run by the Education Department has entailed an increase of the child/teacher ratio in kindergartens of this type: more children are admitted, but there is no corresponding increase in the number of teachers in these kindergartens (table 5).

2.3 Teacher qualifications

The level of education of primary school teachers has increased markedly in the first half of the eighties. The proportion of primary school teachers who are graduates of teacher training schools, of senior secondary schools, or who have higher qualifications has risen to 61% in 1985, up 11% from 1980. During the same period, the proportion of primary school teachers who have completed neither elementary teacher training schools nor junior secondary schools fell to 5.9%, from 10.3% (table 6).

The level of education of general secondary school teachers has also been upgraded significantly, from 1980 to 1985. At the senior secondary school level, there was some increase in the percentage of teachers who had completed normal courses in higher education: the

proportion reached 40%, up 4% from 1980. But the biggest change was at educational level "incompletion of higher education or graduation from short-cycle courses": the proportion reached 43%, representing an increase of 15%. Concurrently, the proportion of general secondary school teachers whose level of education was "completion of secondary education or lower" fell to 17% (table 7).

2.4 Adult education

Adult enrolment in primary schools dropped sharply, representing only about half of its volume, five years earlier. The relative drop was much more noteworthy in workers primary schools than in peasants primary schools. The enrolment in the peasants primary schools was already much larger (95% of the total) than in the workers primary schools. It has increased to 99%. Within the primary schools, the drop in enrolment, from 1980 to 1985, was much sharper for the literacy classes than for the primary schools proper (comparative decreases: 57% and 19%) (table 8).

At the senior and the junior levels combined, enrolment of adults in general secondary schools was, in 1980, much more characteristic of staff and workers than of peasants: 82% of these adults were staff and workers. On the whole, adult enrolment in general secondary schools was on the rise (an increase of 16%) from 1980 to 1985. However, the tendency was not the same for staff and workers and for peasants. Indeed, there was a 119% increase of adult peasants in general secondary schools and a 6.7% decrease of adult staff and workers in general secondary schools. Consequently, in 1985, only 66% of the adults in general secondary schools were staff and workers.

For staff and workers, as well as for peasants, enrolment tended to shift from the junior level to the senior level during the first half of the 1980's. The senior level represented 24% of enrolment in 1980 and 34% of enrolment in 1985. However, staff and workers were

and remained more concentrated at the senior level (28% in 1980 and 48% in 1985) than the peasants (7.8% in 1980 and 8.5% in 1985) (table 9).

The enrolment in normal and short-cycle courses in higher educational institutions for adults increased more than two-fold from 1980 to 1985. Another important change at the higher educational level during this short period is that normal and short-cycle courses for adults have largely replaced courses not leading to formal qualifications: in 1980, only 32% of persons enrolled in higher educational institutions for adults were registered in normal or short-cycle courses leading to formal qualifications; the comparative figure for 1985 was 87%. Total enrolment in higher educational institutions for adults was close to two million in 1985, making it slightly larger than total enrolment in regular institutions of higher education, during the same year.

Radio and television universities have become, for adults, the most popular means of obtaining formal qualifications at the higher educational level: they represented 39% of all enrolment in 1985 (in comparison with 34% in 1980). Next in popularity (29% in 1985) are the evening schools and divisions of correspondence run by regular institutions of higher education. However, the relative importance of this type has tended to recede during the first half of the eighties (it represented 38% of all enrolment in 1980). This decline was attributable to the relatively small increase of enrolment in divisions of correspondence run by regular institutions of higher education. It appears that these divisions, as well as the independent correspondence colleges, are gradually being superseded by radio and television universities. Nevertheless, evening schools run by regular institutions of higher education have been catering to a rapidly increasing clientele: a four-fold increase from 1980 to 1985, and 7.4% of all enrolment in 1985. Enrolment in universities for staff and workers increased almost three-fold and came to represent

15% of all enrolment in 1985. On the other hand, enrolment in universities for peasants decreased by 94% in five years, and represented only 0.05% of all enrolment in 1985. Finally, the enrolment of adults in educational colleges has had a remarkable growth: after a five-fold increase, from 1980 to 1985, it represented 14% of all enrolment (tables 10 and 11).

2.5 Special education

Many special education schools were created between 1980 and 1985: an increase of 28%. Overall enrolment in special education schools has similarly increased. Most children in special education schools are deaf-mute; but their percentage has decreased (from 95% in 1980 to 86% in 1985) as the proportion of blind children has increased, and as 25 schools for retarded children (there were no such schools in 1980) were created between 1980 and 1985 (with an enrolment of 3,717 in 1985). In parallel with these developments, the child/teacher and child/non-teaching staff ratios in special education schools have been reduced between 1980 and 1985. The reduction of the child/teacher ratio was especially noteworthy (from 6.9/1 to 5.8/1), (tables 12, 13 and 14).

2.6 Fields of study

During the first half of the eighties, the number of regular institutions of higher education jumped by 51% and reached 1,016 in 1985. This was paralleled by a similar increase of enrolment in regular institutions of higher education (49%). Among the various fields of study, engineering had and maintained the largest proportion of students (34%). Teacher training was the next largest category, but its growth was below average, and it lost some ground: it represented 30% of total enrolment in 1980, and 25% in 1985. The fastest growing field of study, in terms of enrolment was political science and law, with a five-fold increase. It was followed by

finance and economics, with a three-fold increase. In humanities, as well as in art, the increase was more than 100%, and was thus above average. Fields with the smallest growth were medicine and pharmacy, natural sciences, agriculture, and teacher training (respective increases of 13%, 17%, 26% and 26%). The enrolment increase in forestry and in physical culture was about average (50% and 45%) (tables 15 and 16).

Overall, there was a three-fold increase in the enrolment of postgraduate students (Masters and Doctorates combined) in regular institutions of higher education. Engineering, natural sciences, and medicine and pharmacy, in that order, were and remained the fields of study with the largest enrolment of postgraduate students. However, growth was especially strong in engineering: of all graduate students, those who were enrolled in this field constituted 33% in 1980 and 42% in 1985. The four fastest growing fields of study, in terms of postgraduate enrolment, were political science and law (a seventeen-fold increase), finance and economics (a nine-fold increase), agriculture (a five-fold increase) and forestry (a four-fold increase), although these four fields still represented, in 1985, relatively small proportions of the overall postgraduate enrolment (3.5%, 5.2%, 4.5% and 0.6%). In teacher training, the increase (259%) of postgraduate enrolment was below average and the share of this field was reduced: from 7.9% in 1980 to 7.0% in 1985. In humanities, the reduction of the share of postgraduate enrolment was much sharper (from 12.2% in 1980 down to 6.2% in 1985), despite the one-fold increase of enrolment in this field. Enrolment in physical culture and in art was already very small in 1980, and its increase during the first half of the eighties was much below average (table 17).

In regular institutions of higher education, while the increase of enrolment in engineering, at the undergraduate and postgraduate levels combined, was 51% between 1980 and 1985, there was a great deal

of variation in the increase of enrolment in the various subfields of engineering: the variation of increase ranged from 28% to 210%. The two fastest developing subfields were grain processing and food industry (a two-fold increase) and civil engineering and architecture (a one-fold increase). Other fast developing subfields were telecommunications (an increase of 90%), light industry (an increase of 82%), and radio and electronics (an increase of 72%). The increases of enrolment were smallest in metallurgy (28%), mapping, surveying and hydrology (29%), mechanical engineering (36%) and transportation (36%). Mechanical engineering, despite a slower growth, retained, in 1985, the largest share of enrolment in engineering (26%). Owing to their fast development, subfield radio and electronics and subfield civil engineering and architecture, which were, in 1980, the second and third largest subfields, increased their respective share to 19% and 16% in 1985 (table 18).

Secondary schools are of three types: specialized secondary schools, general secondary schools, and agricultural and vocational schools. The specialized secondary schools are further divided into two subtypes: secondary technical schools and teacher training schools. Teacher training schools have two categories: pre-primary teacher training schools, and others.

From 1980 to 1985, total enrolment in specialized secondary schools increased by 26%. However, the increase in teacher training schools was much smaller (17%) than in secondary technical schools (33%). Countering this trend was a remarkable increase (81%) of enrolment in category pre-primary teacher training schools. Within secondary technical schools, enrolment increases were largest in the following fields: finance and economics (126%), physical culture (68%), forestry (58%) and art (54%). Political science and law, as a field of study, was introduced into the curriculum of the secondary technical schools in 1981. Four years later, enrolment in this field (48,049) was 2.5 times as large as in forestry, and 1.4 times as large

as in physical culture and art combined. Agriculture and health, as fields of study in the secondary technical schools ran contrary to the general pattern of growth of enrolment, with a decline of 13.2% and 1.7%, respectively, from 1980 to 1985. Nevertheless, these two fields, still had a sizeable share (10% and 22%) of all enrolment in secondary technical schools in 1985. In terms of volume of enrolment and rate of increase of enrolment, finance and economics, as a field of study, stands out: its share of all enrolment in secondary technical schools was 24% in 1985, and its enrolment increased by 126%, from 1980 to 1985. Industry still surpassed finance and economics, in terms of volume of enrolment (share of 33%), but its growth had been much slower (increase of 28%). Finally, because of the slower growth of enrolment in the teacher training schools, the share of the latter, within all specialized secondary schools, slipped from 39% to 36%, from 1980 to 1985 (table 19).

2.7 Regional disparities

Recently, each of the 29 provincial-level territories has been categorized in one of three regions: East, Centre and West. The East Region is made up of all provincial-level territories that border on the sea, plus Beijing. These territories are: Liaoning, Hebei, Beijing, Tianjin, Shandong, Jiangsu, Shanghai, Zhejiang, Fujian, Guangdong and Guangxi. The Centre Region is composed of Heilongjiang, Jilin, Inner Mongolia, Shanxi, Henan, Anhui, Hubei, Hunan and Jiangxi. The territories of the West Region are: Shaanxi, Ningxia, Gansu, Qinghai, Xinjiang, Tibet, Sichuan, Guizhou and Yunnan.

The East Region is the part that has been affected most by the recent introduction of foreign technologies. While its population represents 41.1% of the total national population (1982 census), its 220,000 entreprises make up 47.6% of the national total, and its 4,246 large- and middle-sized entreprises represent 53.7% of the national total. On the other hand, natural resources and raw materials are

relatively scarce in the East.

The population of the Centre Region represents 35.8% of the total national population, but its cultivated land constitutes 43.7% of the national total. Moreover, the average annual per capita grain production from 1981 to 1985 has been 12.9% higher than the national average. The Centre Region is also rich in mineral deposits such as coal, oil and copper.

The West Region has vast areas of pasture land and a promising potential for hydro-electric energy, in addition to its mineral resources. The West is already an important centre of military industries.

At the national level, from 1980 to 1985, there has been a 69.1% increase in the value of the total output (table 20). Although the percentage for each of the three regions is high - East: 73.7%; Centre: 64.3%; West: 61.4% -, the three regions have been developing at uneven rates. The East's share of the total output in 1980 was 55.4%, while its share of the total population is 41.1%. In 1985, its share of the total output increased to 56.9%. In 1980, both the Centre and the West had a share of total output smaller than their share of the total population. In both cases, the gap has widened from 1980 to 1985.[2]

At the national level, from 1980 to 1985, the increase of value has been larger for industrial output (76.2%) than for agricultural output (49.8%) (tables 21 and 22). Also, while in 1980 the East far outdistanced the Centre and, especially, the West, in industrial output, the inter-regional gap has widened from 1980 to 1985. The East's share of the total value of industrial output was 60.0% in 1980 and 61.2% in 1985. Even in terms of agricultural output, there has been a small and growing advantage of the East over the Centre and the West. The East's share of the value of agricultural output was 42.8%

in 1980, and 43.3% in 1985.

During the eighties, in parallel with the rapid industrialization of the East and the relatively slow industrial growth of the West, the population growth has been relatively more rapid in the East than in the West (table 23). The share of the total population for the East and the West is, respectively, 41.1% and 23.1% (1982 census), but the comparative share of the increase of population for these two regions, from 1980 to 1985, has been 45.5% and 21.3%. This phenomenon is all the more striking because in past decades the natural growth of the population in the West has been generally higher than in the East. The reversal of this long-term trend has been attributed to an exodus of qualified workers from the West to the Centre and the East during the eighties.[3]

The net per capita income of workers in the East (Y1,132) is about the same as that of workers in the West (Y1,136) (table 24). This would be because of the special policy in favour of remote areas inhabited by national minorities.[4] However, the net per capita income of farmers increases substantially from the West to the Centre and to the East, being Y322, Y389 and Y463, respectively.

We noted earlier that an inter-provincial redistribution of higher education has taken place in the PRC throughout the fifties, sixties and seventies, and especially between 1965 and 1976. Indeed, during these three decades, the provincial shares of higher education enrolment have tended to come closer to the provincial shares of the total population, as educationally more advanced territories made way for educationally less advanced territories. We also noted that, in 1980, there remained substantial inequalities in the distribution of higher education enrolment among the provincial-level territories.

Has the three-decade trend of redistribution of higher education enrolment been maintained during the eighties? -The situation is less clear-cut than in the preceding three decades. In 1980, 18 provincial-level territories had a share of higher education enrolment smaller than their share of the total population (tables 25 and 26). Of these, from 1980 to 1985, 9 have increased their share of enrolment, 7 have decreased it, and 2 have kept the status quo. The situation for the 11 provincial-level territories which, in 1980, had a share of higher education enrolment larger than their share of the total population has evolved as follows, from 1980 to 1985: 5 territories have decreased their share and 6 territories have increased their share. Altogether, then, there has been, from 1980 to 1985, in the inter-provincial higher education enrolment, a trend toward equalization in 14 territories, a trend toward widening of the gap in 13 territories, and the status quo in 2 territories.

The share of higher education enrolment of all retarded territories was 47% in 1980, and was still 47% in 1985. The share of the total population (1982 census) of all retarded territories is 69%. We may conclude that, in the eighties, the retarded territories have neither lost nor gained ground: the gap separating them from the advanced territories has neither widened nor narrowed. Thus, the three-decade trend of redistribution of higher education enrolment has not been maintained during the eighties, and the retarded territories have stopped increasing their share of the national total.

During the first half of the eighties, there was a pattern of redistribution of enrolment in general secondary schools between the less advanced and the more advanced territories. The pattern characterizes 23 territories for the senior level and 18 territories for the junior level. A counter trend is noted in only 4 and 8 territories respectively, for the senior and the junior levels. In particular, there was a reduction of the share of senior level enrolment in the three municipalities (Beijing, Tianjin and Shanghai)

Heilongjiang), although in each of these six territories the share of enrolment remained, in 1985, larger than the share of total population (tables 27 to 30).

In 1980, the counties had a relatively small share of the enrolment in senior level general secondary schools (45.6%, their share of the total population being 79.4%), and both the cities and the towns had a relatively large share. This disproportion had increased tremendously in 1985, as the enrolment in senior level general secondary schools of the counties represented only 26.7% of the total, and the share of the towns had moved up to 42.0%, from 24.8% in 1980. From 1980 to 1985, also, the counties' share of junior level general secondary schools also decreased noticeably: from 77.5% to 68.1% (table 31).

At the national level, from 1980 to 1985, there was a 14.6% drop in general secondary school enrolment: 23.6% at the senior level and 12.6% at the junior level (table 32). The drop was especially large in the counties: 55.3% at the senior level and 23.3% at the junior level. However, the enrolment increased during that period, at both levels in the towns, and at the junior level in the cities. Although the enrolment increased in the other types of secondary schools (32.5% in the secondary technical schools, 16.7% in the teacher training schools, 477.4% at the senior level of the agricultural and vocational schools, and 236.4% at the junior level of the agricultural and vocational schools), there was an overall 10.3% decrease in the enrolment of the various secondary schools during that period (table 33).

In 1980, enrolment in secondary technical schools of the three municipalities (Beijing, Tianjin and Shanghai) was relatively large, in comparison with the other provincial level territories. Indeed, in 1980, the territorial share of enrolment, in secondary technical schools, of each of the three municipalities was larger than the

territorial share of the total population. Between 1980 and 1985, this discrepancy was enhanced, as Beijing, Tianjin and Shanghai increased their share of enrolment in secondary technical schools. In the other territories, the pattern of development varied: the discrepancy was reduced in 14 territories, and enhanced in 8 territories; and there was no trend in 4 territories (tables 34 and 35).

In 1980, 17 of the 29 provincial level territories had a share of enrolment in secondary teacher training schools larger than their share of the total population, indicating a relatively high concentration of enrolment in secondary teacher training schools in these territories, as well as a low concentration in the other territories. From 1980 to 1985, the pattern of development has been to redistribute more proportionately between the territories the enrolment in secondary teacher training schools: the share of enrolment has tended to increase where it was small, and vice versa. This redistribution process has taken place in 19 of the 29 territories. Since there was no trend in 3 territories, the reverse trend (i.e. an increase of the share of enrolment where it was already large, and vice versa) has taken place in only 7 territories (tables 36 and 37).

In 1980, enrolment in agricultural and vocational schools of the three northeastern provinces (Liaoning, Jilin and Heilongjiang) was relatively large: the combined share of enrolment was 34%, while the combined share of total population was only 9%. By 1985, however, the share of enrolment of these three provinces had fallen to 19%. This change was part of a redistribution pattern of development between the provincial level territories from 1980 to 1985: indeed, in 22 territories the share of enrolment decreased where it had been large, and vice versa; in only 5 territories was there a counter trend (tables 38 and 39).

There was no inter-provincial redistribution pattern of development in the enrolment in primary schools from 1980 to 1985: the discrepancy between the share of enrolment and the share of total population was reduced in 13 territories, but it was enhanced in 11 other territories (tables 40 and 41). The cities' share of enrolment in the primary schools was and remained much lower than their share of the total population (14.4% in 1982) although the discrepancy was reduced (enrolment share of 7.0% in 1980, and 8.2% in 1985). Conversely, the counties' share of enrolment in the primary schools decreased (from 87% in 1980 to 83% in 1985), but remained larger than their share of the total population (79% in 1982). This phenomenon is a reflection of a lag in the reduction of the birth rate in the counties (table 31).

In 1980, the three municipalities (Beijing, Tianjin and Shanghai) had a share of enrolment in kindergartens much above their share of the total population: their combined enrolment was 5.2%, and their combined share of the total population was only 2.9%. Five years later this difference had enlarged as the share of enrolment increased to 6.4%. In 17 of the 26 other territories, however, a redistribution of the shares of enrolment has taken place. Aside from the three municipalities, there was a counter trend in 8 territories (tables 42 and 43).

Throughout the country, the pupil/teacher ratio in the primary schools decreased during the first half of the eighties. In other words, the average number of pupils for each primary school teacher has become smaller: the ratio fell to 24.9/1, from 26.6/1. This change took place in cities, in towns and in counties, but it was especially obvious in the towns (the ratio dwindled to 22.7/1, from 26.7). However, the ratio was and remained smaller in the cities than in the towns, and smaller in the towns than in the counties (table 44).

Meanwhile, there was no substantial change in the infant/teacher

ratio in the kindergartens of the cities, the towns and the counties: the ratio slightly increased in the cities, and slightly decreased in the towns and in the counties. Overall, the ratio was and remained a little smaller in the cities than in the towns, and much smaller in the towns than in the counties (table 45).

2.8 Ethnic disparities

In 1980, the enrolment of the national minorities in the various types of educational institutions, except the teacher training schools, was below 6.7%, the latter percentage representing the national minorities' share of the total population. The national minorities were especially few in the institutions of higher education (even more so at the postgraduate level), in the general secondary schools, in the agricultural and vocational schools, in the kindergartens, and in the schools for the blind, the deaf-mute and the retarded. They were very well represented - 9.3% - in the teacher training schools (table 46).

Remarkable progress was made during the following five years in all types of educational institutions except the teacher training schools. However, the national minorities remain underrepresented in institutions of higher education (especially at the postgraduate level), in general secondary schools, in agricultural and vocational schools, in kindergartens, and in schools for the blind, the deaf-mute and the retarded.

Analogous characteristics are found with national minority teachers in the various types of educational institutions. Despite notable progress in all types of educational institutions between 1980 and 1985, the national minority teachers, in 1985, are underrepresented in all types of educational institutions except teacher training schools and primary schools. The representation is approximately proportional in the latter two types (table 47).

2.9 Gender disparities

In 1980, females were underrepresented in the enrolment of the various types of educational institutions. The difference between female enrolment and male enrolment was especially large in the teacher training schools, in undergraduate higher education and, mostly, in postgraduate higher education. During the following five years, females have progressed significantly in postgraduate and undergraduate higher education and in teacher training schools, although there remained a gap between female and male enrolment in all types of educational institutions (table 48).

Although female teachers have made significant headway during the first half of the eighties, they are even more underrepresented than female students in the various educational institutions. In 1985, the representation of female teachers in institutions of higher education was about the same as in the other types of educational institutions, except primary schools, where female teachers constitute a more sizeable minority (39.6%) of the population of teachers (table 49).

3. Summary and conclusion

During the fifties, sixties and seventies, the economic development of the PRC has displayed a trend towards the reduction of disparities between advanced and retarded provincial-level territories. In parallel, during these three decades, there was a tendency towards the reduction of educational disparities between regions and ethnic groups. Nevertheless, statistical data, covering the period 1949 to 1982, have revealed the persistence of notable disparities, despite the generally accelerated educational development of less advanced regions and ethnic groups. Variables "region" and "ethnic group" overlap to a certain extent: some less advanced ethnic groups live in less advanced regions. Future observations at the

prefecture and the county levels would contribute to determine to what extent the educational disparities can be explained respectively by these two variables.

The 1982 census has revealed that illiteracy is widespread in the working population, especially among peasants. The proportion of peasants in the working population is large, but it varies among the provinces and among the 56 nationalities. The males' presence is preponderant in the working population, but it varies among the national minorities. Illiteracy is rare among the urban unemployed. The latter are mainly middle-school graduates under 25; they tend to be female, and they represent a relatively small proportion of the urban population of working age.

Data from 1982 also show a large female/male educational disparity, in terms of illiteracy. Moreover, the female/male inequality ratio of illiteracy varies among some economic regions, among some provincial-level territories, and among several minorities. Males are in proportionately greater numbers in occupations that are associated with more education. In addition, females are substantially outnumbered by males as cadres, even where both genders have a low level of illiteracy. Within some provincial-level territories, different nationalities display contrasting educational and employment characteristics; this points to the need to pursue the analysis at the intra-provincial level, in order to analyze more precisely the respective effect of region and ethnicity on education and employment.

From 1980 to 1985, expenditures and investment in education have increased at a faster rate than the total national budget. School enrolment increased substantially, especially in higher education. The restructuring of secondary schools entailed a very large increase of enrolment in agricultural and vocational schools and, to a lesser extent, in secondary specialized schools. However, these changes were far from offsetting the large drop of enrolment in general secondary

schools. It may be hypothesized that this phenomenon is related to the comparative benefits of education and work for young people in the context of the responsibility system and the job market. Meanwhile, secondary teacher training schools were not too successful in attracting students, although in-service teachers in primary schools and in general secondary schools upgraded their qualifications significantly. A smaller birth rate caused a decline in primary school enrolment; but the enrolment in kindergartens increased substantially, in answer to the large demand.

Adult enrolment in primary schools, especially in workers primary schools, dropped sharply during the first half of the eighties. This was mainly attributable to a decline of the enrolment in the literacy classes of the primary schools. In general secondary schools for adults, there was a large increase of peasants, but a decrease of workers. In higher education, adult enrolment in normal and short-cycle courses rose significantly. Especially noteworthy were the radio and television universities, which gradually superseded the divisions of correspondence in regular institutions of higher education.

The most popular fields of study in higher education were engineering and teacher training. But the fastest rising fields were political science and law, and finance and economics. In engineering, the five subfields with the largest increase in enrolment from 1980 to 1985, were: grain processing and food industry, civil engineering and architecture, telecommunications, light industry, and radio and electronics. In secondary technical schools, finance and economics, and political science and law were the two fastest developing orientations.

During the first half of the eighties, the East Region's share of industrial output, which already was disproportionately large, has increased, thus reversing a three-decade trend of redistribution of

economic development between the advanced and the retarded provincial-level territories. In higher education, there had also been a three-decade trend of redistribution of enrolment between the advanced and the retarded provincial-level territories. This trend has not been maintained during the eighties, as the retarded territories have stopped increasing their share of the national total.

During the first half of the eighties, the drop in the enrolment of the general secondary schools affected mainly the schools in the counties, rather than those in the cities and the towns. This had the effect of reinforcing the existing disproportion in the location of the general secondary schools. Nevertheless, during the same period, an inter-provincial redistribution of enrolment in general secondary schools has taken place. An inter-provincial redistribution of enrolment has also taken place in secondary teacher training schools and in agricultural and vocational schools. For enrolment in the secondary technical schools, the three municipalities - Beijing, Tianjin and Shanghai -, whose share of enrolment was already disproportionately large, have enhanced this characteristic. The three municipalities also increased their already large share of enrolment in kindergartens.

The pupil/teacher ratio (i.e. the number of pupils for each teacher) decreased in primary schools, but the ratio was and remained smaller in the cities than in the towns, and smaller in the towns than in the counties. The ratio did not change noticeably in kindergartens, and there was a city-town-county difference, much like the one in primary schools. However, the very large increase of enrolment in pre-school teacher training schools would likely lead to a decrease in the ratio. In special education schools (mainly for the deaf-mute), the ratio has also decreased, despite a noticeable rise of the enrolment; these are signs that the quality of service has improved in that area.

From 1980 to 1985, the national minorities have continued to increase their representation in educational institutions, as students and as teachers. However, in 1985, they remained underrepresented, as students and as teachers, in institutions of higher education, in general secondary schools, and in agricultural and vocational schools. From 1980 to 1985, females also made progress, as students and as teachers, in all types of educational institutions, although there remained in 1985, an educational gap between females and males in all types of educational institutions.

NOTES

1 For a more elaborate analysis, see: Jacques Lamontagne. "Educational Development in the People's Republic of China: Regional and Ethnic Disparities". Journal of International and Comparative Education, 1, 2, 1986: 408-63; and Jacques Lamontagne. "Education and Employment in China: Variations According to Gender, Region, Ethnicity and Age". Paper presented at the Learned Societies Conference, McMaster University, Hamilton, Ontario, June 2, 1987, 27 p.

2 In addition to the inter-regional disparities, there are intra-regional disparities. For instance, in 1985, the per capita production was ¥7,335 in Shanghai, while it averaged approximately ¥1,000 in the other territories of the East Region. In Xinjiang and Tibet, both of the West Region, the comparative figures were, respectively, ¥911 and ¥435.

3 Beijing Information. No. 49, December 8, 1986, p. 27.

4 Ibid., p. 26.

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